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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,027	02/26/2004	Masato Suga	1450.1037	2921
21171	7590	01/13/2006		
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER LEWIS, MONICA	
			ART UNIT 2822	PAPER NUMBER

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/786,027

Applicant(s)

SUGA, MASATO

Examiner

Monica Lewis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the election filed October 27, 2005.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Election/Restrictions

3. Applicant's election without traverse of Embodiment II in the reply filed on 10/27/05 is acknowledged.

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: a) DP2D (See Figure 13). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following must be

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shown or the feature(s) canceled from the claim(s): a) longer sides of said dummy pattern extend in a same direction as said actual pattern which is perpendicularly wired extends (See Claim 4); and b) “longer sides of said dummy pattern extend perpendicularly to the direction in which said actual pattern extends” (See Claim 5). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Information Disclosure Statement

6. The information disclosure statement filed 2/26/04 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other

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information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what is meant by the following:
- a) "longer sides of said dummy pattern extend in a same direction as said actual pattern which is perpendicularly wired extends" (See Claim 4); and b) "longer sides of said dummy pattern extend perpendicularly to the direction in which said actual pattern extends" (See Claim 5). Claim 6 depends directly or indirectly from a rejected claim and are, therefore, also rejected under 35 U.S.C. 112, second paragraph for the reasons set above.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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10. Claims 3-5, 7 and 8, as far as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Prior Art in view of Taniguchi (Japanese Patent No. 2000151035).

In regards to claim 3, Taniguchi discloses the following:

a) a wiring layer on which a dummy pattern (15) and an actual pattern (13) are arranged, wherein said dummy pattern has a rectangular shape and is arranged by rotating a given angle in a direction in which said actual pattern extends (For Example: See Figure 1).

In regards to claim 3, Taniguchi fails to disclose the following:

a) a plurality of wiring layers.

However, Applicant's Prior Art discloses a plurality of wiring layers (For Example: See Figure 2B). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor of Taniguchi to include a plurality of wiring layers as disclosed in Applicant's Prior Art because it aids in providing density (For Example: See Page 1 Lines 15-20).

Additionally, since Taniguchi and Applicant's Prior Art are both from the same field of endeavor, the purpose disclosed by Applicant's Prior Art would have been recognized in the pertinent art of Taniguchi.

In regards to claim 4, Taniguchi discloses the following:

a) longer sides of said dummy pattern extend in a same direction as said actual pattern which is perpendicularly wired extends (For Example: See Figure 1).

In regards to claim 5, Taniguchi discloses the following:

a) longer sides of said dummy pattern extend perpendicularly to the direction in which said actual pattern extends (For Example: See Figure 1).

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In regards to claim 7, Taniguchi discloses the following:

a) wherein positions of center points of said dummy patterns of said plurality of wiring layers vary for respective wiring layers (For Example: See Figure 1).

In regards to claim 8, Taniguchi discloses the following:

a) wherein positions of center points of said dummy patterns of said plurality of wiring layers vary for respective wiring layers and respective longer sides of said dummy patterns on different wiring layers extend parallel to each other (For Example: See Figure 1).

11. Claim 6, as far as understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Prior Art in view of Taniguchi (Japanese Patent No. 2000151035) and Cheng et al. (U.S. Publication No. 2004/0108592).

In regards to claim 6, Taniguchi fails to disclose the following:

a) actual pattern is perpendicularly wired.

However, Cheng et al. ("Cheng") discloses a pattern that is perpendicularly wired (For Example: See Figure 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor of Taniguchi to include a pattern that is perpendicularly wired as disclosed in Cheng because it aids in providing homogeneous current flow (For Example: See Paragraph 42).

Additionally, since Taniguchi and Cheng are both from the same field of endeavor, the purpose disclosed by Cheng would have been recognized in the pertinent art of Taniguchi.

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12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Prior Art in view of Taniguchi (Japanese Patent No. 2000151035) and Harvey (U.S. Patent No. 5,854,125).

In regards to claim 9, Taniguchi fails to disclose the following:

a) respective longer sides of said dummy patterns on adjacent wiring layers extend perpendicularly to each other.

However, Harvey discloses respective longer sides of said dummy patterns (510a and 510b) on adjacent wiring layers extend perpendicularly to each other (For Example: See Figure 5a). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor of Taniguchi to include respective longer sides of said dummy patterns as disclosed in Harvey because it aids in providing interconnect planarity (For Example: See Column 1 Lines 5-10).

Additionally, since Taniguchi and Harvey are both from the same field of endeavor, the purpose disclosed by Harvey would have been recognized in the pertinent art of Taniguchi.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica Lewis whose telephone number is 571-272-1838. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zandra Smith can be reached on 571-272-2429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300 for regular and after final communications. Any inquiry of a general nature or relating to the

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status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

ML

December 23, 2005

A handwritten signature in black ink, consisting of stylized, cursive letters that appear to be 'Ull' followed by a long horizontal stroke.